AMENDMENTS TO THE CLAIMS

Please amend claims 1, 2, and 18-20, as follows, and cancel claim 21.

1. (Currently Amended) A method of ~~for~~ improving the ability to prepare germline chimeric chickens ~~the germline transmission efficiency of up to 49.7% of chicken primordial germ cells (PGCs)~~, which comprises the steps of: (a) isolating primordial germ cells (PGCs) from a chicken embryonic gonad; (b) culturing said PGCs *in vitro* for at least 10 days on a gonadal stroma feeder cell layer; (c) separating said PGCs cultured *in vitro* for at least 10 days from a culture medium without employing the procedure of Ficoll density gradient centrifugation; and (d) ~~(c)~~ injecting said separated ~~cultured~~ PGCs into the dorsal aorta of a recipient chicken embryo, wherein the efficiency of germline transmission of the PGCs injected is between 44.7% and 49.7% and said PGCs are positive for stage specific embryonic antigen-1 (SSEA-1) after in vitro culture for at least 10 days ~~wherein said PGCs *in vitro* cultured in step (b) express a stage specific embryonic antigen-1 (SSEA-1), said injecting cultured PGCs into the recipient embryo is carried out by injecting cultured PGCs into the dorsal arota of the recipient embryo, and said culturing of the PGCs *in vitro* is conducted on a gonadal stroma feeder cell layer~~.

2. (Currently Amended) A method ~~for~~ of improving germline transmission when preparing a chicken germline chimera ~~exhibiting an improved germline transmission efficiency of up to 49.7%~~, which comprises the steps of: (a) isolating primordial germ cells (PGCs) from a chicken embryonic gonad; (b) culturing said PGCs *in vitro* for at least 10 days on a gonadal

stroma feeder cell layer; (c) separating said PGCs cultured *in vitro* for at least 10 days from a culture medium without employing the procedure of Ficoll density gradient centrifugation; (d) ~~(c)~~ injecting said ~~cultured~~ separated PGCs into the dorsal aorta of a recipient chicken embryo; and (e) ~~(d)~~ incubating and hatching an egg containing said recipient chicken embryo such that a chicken germline chimera occurs, ~~whereby the chicken germline chimera is prepared~~, wherein the efficiency of making germline chimeras is between 44.7% and 49.7% and said PGCs are positive for stage specific embryonic antigen-1 (SSEA-1) after in vitro culture for at least 10 days ~~wherein said PGCs that are *in vitro* cultured in step (b) express a stage specific embryonic antigen-1 (SSEA-1), said injecting of the cultured PGCs into the recipient embryo is carried out by injecting the cultured PGCs into the dorsal arota of the recipient embryo, and said culturing of the PGCs *in vitro* is conducted on a gonadal stroma feeder cell layer~~.

3-7. (Canceled)

8. (Original) The method according to claim 1 or 2, wherein said culturing of the PGCs *in vitro* is conducted in a medium containing a cell growth factor and a differentiation inhibitory factor.

9. (Original) The method according to claim 8, wherein said cell growth factor is selected from the group consisting of stem cell factor, fibroblast growth factor, interleukin-11, insulin-like growth factor and their combination.

10. (Original) The method according to claim 8, wherein said differentiation inhibitory factor is leukemia inhibitory factor.

11. (Previously Presented) The method according to claim 1 or 2, wherein said culturing of the PGCs *in vitro* is conducted in a medium containing a serum selected from the group consisting of avian serum, mammalian serum, and their combination.

12-17. (Cancelled).

18. (Currently Amended) The method of claim 1 or 2, wherein the chicken embryonic gonad ~~the source of the chicken PGCs~~ is a Korean Ogol Chicken (KOC) embryonic ~~embryo~~ gonad.

19. (Currently Amended) The method of claim 1 or 2, wherein the recipient chicken embryo is a White Leghorn embryo.

20. (Currently Amended) The method of claim 1 or 2, wherein the chicken embryonic gonad ~~the source of the chicken PGCs~~ is a Korean Ogol Chicken (KOC) embryonic ~~embryo~~ gonad and the recipient ~~source of the~~ chicken embryo is a White Leghorn embryo.

21. (Canceled).